

B1
Comp

wherein the phototransistor and high-speed bipolar transistor structure includes:
a composite collector layer which consists of a collector layer and a photo-absorbing layer, wherein the photo absorbing layer is formed on the collector layer;
a base layer, located on the composite collector layer; and
an emitter layer, formed on the base layer.

B2

29(Amended). A single-chip structure of SiGe photodetectors and high-speed transistors comprising:

a substrate;
a photodiode, which is formed on a side of the substrate;
a high-speed bipolar transistor which is located on the opposite side of the photodiode on substrate; and

a separated insulation layer which separates the photodiode and the high-speed bipolar transistor, the photodiode and the high-speed bipolar transistor can be completely implemented by using a single-chip structure;

wherein the photodiode and high-speed bipolar transistor structure includes;
a composite collector layer consists of a collector layer and a photo-absorbing layer, wherein the photo-absorbing layer is formed on the collector layer;
a base layer, formed on the composite collector layer;
an emitter layer, formed on the base layer of the high-speed bipolar transistor,
but the photodiode has no emitter layer.
